

TITLE OF THE INVENTION  
DISPOSABLE TOILET-BOX FOR CATS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is an U.S. national phase application under 35 U.S.C. §371 based upon co-pending International Application No. PCT/IT2003/000475 filed July 30, 2003. Additionally, this U.S. national phase application claims the benefit of priority of co-pending International Application No. PCT/IT2003/000475 filed July 30, 2003, and Italian Application No. VA2002A000042 filed July 30, 2002. The entire disclosures of the prior applications are incorporated herein by reference. The international application was published February 5, 2004 under Publication No. WO 2004/010772 A2.

STATEMENT REGARDING FEDERALLY SPONSEORED RESEARCH OR  
DEVELOPMENT

Not Applicable

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

Not Applicable

INCORPORATION BY REFERENCE OF MATERIAL SUBMITTED ON A COMPACT  
DISC

Not Applicable

BACKGROUND OF THE INVENTION

Field of the Invention

The invention is referred to the boxes (or trays) into which one fills sand (or hygienic litter) and which are used as toilet by cats. It is a toilet-box realized in the disposable version, which after having been used is destined to the trash together with its contents.

## BRIEF SUMMARY OF THE INVENTION

Explanatory note: The disposable toilet-box for cats has been developed in consequence of the necessity to take a cat on a journey and having to stay for a couple of days in a place where they were not organized for animals. The normal equipment for the physiological relieves of the cat was too big for the luggage. In the shops they offered several models of cat litter boxes and separately packaging containing hygienic litter and some other equipment like plastic film or bags for collecting the litter but there wasn't found anything handy, quick to use and easy to get rid of it. So a simple and provisory execution has been realized and, supposing that somebody else might have the same necessity, this was examined and a new, practical and disposable object has been defined.

## BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a front perspective view of the preferred embodiment of the disposable toilet-box for cats constructed in accordance with the principles of the present invention.

Figure 2 is a front perspective view an opened and closed of the disposable toilet-box for cats constructed in accordance with the principles of the present invention.

Figure 3 is a top plan view of the disposable toilet-box for cats constructed in accordance with the principles of the present invention.

Figure 4 is a bottom perspective view of the disposable toilet-box for cats constructed in accordance with the principles of the present invention.

The same reference numerals refer to the same parts throughout the various figures.

## DETAILED DESCRIPTION OF THE INVENTION

The characteristic of being the toilet-box for cats disposable has been considered fundamental.

The enclosed Figure 1 show a model for better understanding and example.

It is intended to be realized in two different types: 1) Full toilet-box: the packaging (rigid, semirigid or pliable-box, tray or other) containing the sand (or hygienic litter or other material for receiving the animal's excrements) is executed in a way that, after having been opened, it can be used as toilet by the animal and after the use it is destined to the trash together with its contents.

A saving of effort is deriving therefrom for not having to transfer the material before and after the use and an advantage from the hygienical point of view for not needing to handle the dirty material too much after use;

Explanatory note: This corresponds to the disposable toilet-box shown on the enclosed Figure 1. It is made of carton and has a shape that makes it recognizable as being for cats. It is characterized by a particular opening and closing system and a 3-layer bottom to secure it against wetness.

The particularity of the opening and closing system makes the box becoming higher when it is open and lower when it is closed. This gives more space for the cat when moving inside and avoids the litter to come out of the box while being it lower when it is closed the box becomes smaller, easier to handle and to throw away. Furthermore the cover, besides having a shape that alludes to a cat's head, is executed for being easy to open, to close and to fix when closed for keeping the material safe inside.

The features and the closing and opening mechanism are described herebelow (the dimensions can be deducted from the enclosed Figure 3): Features: When it is open, the box is a rectangular box with 5 faces: the bottom, 4 vertical faces, no cover (2 short

side faces and the frontal and the back face being longer). The 2 side faces and the frontal have the same height. The back face is considerably higher as the exceeding part becomes the cover of the box.

The top edge of this part has a particular shape (3 curves: 2 sharp curves at the corners and a lower plane curve in the middle between them) which is made for fixing the cover when it is closed and which has been cut in a way that makes it look like the two ears and the brow of a cat.

The movement is made possible by the following plies: there is one outcoming horizontal ply at half height all along the 4 side faces which subdivides them into upper and lower part and 4 oblique entering plies distributed as follows: one on each side face, in the upper part and starting from the a. m. horizontal ply where the latter meets with the back face of the box; and respectively one left and one right on the upper part of the frontal face, starting from the horizontal ply where this meets with the side face.

Closing and opening mechanism: The closing and opening is done by acatenated movement which starts from the cover and is transmitted by the outcoming and entering plies to the upper part of the box. The outcoming horizontal ply becomes the upper border of the box when it is closed.

When lowering the cover, this transforms the upper part of the 2 side faces and the frontal face, by acting on the plies, into 3 flaps which are oriented towards the internal side of the box. The cover pushes down the two lateral flaps and the two lateral flaps push down the frontal flap.

When pushing down the cover until bringing the "brow" under the frontal flap the box is closed.

And it is quite secure against accidental opening because the "ears" keep the lateral flaps into position and the pressure exerted by the lateral flaps on the extremities of the frontal flap makes the latter resistant against some opposition of the cover.

The box can be opened by pulling up the two "ears" and bringing the cover in the vertical position. The 3 flaps will then return in their original position and become part of the 4 vertical faces again. (See Figure 2 at this purpose).

The 3-layer bottom: This is obtained by folding the 4 flaps of the bottom and sticking them together. The two larger cover each the whole surface of the bottom and, there between, the two smaller together cover the same surface. The way of folding them is very simple and shown on Figure 4.

2) Empty toilet-box: this is an empty container (box, pliable box, tray or other) which, after having been filled with sand (or hygienic litter or other material for receiving the animal's escrement), is used by the cat as toilet and which after the use is destined to the trash together with its contents.

An advantage is deriving therefrom for having the possibility to fill in the desired quantity of sand (or hygienic litter or other material for receiving the animal's escrement) and an advantage from the hygienical point of view for not needing to handle the dirty material too much after use.

Explanatory note: The possibility has been considered of making the disposable toilet-box for cats available in an empty version as well because this might offer some advantages when preferring to choose the quantity of litter to fill in, or wanting to fill in a particular type of litter or considering it easier to stock or to carry.

Both types have been devised in the following two versions: as self-standing toilet-box and as spare toilet-box to be received by another structure.

Explanatory note: In some cases it might be preferable to have a permanent and not degradable structure to hold the disposable toilet-box; for example when it is kept outside. The model shown on Figure 1 is intended to be a full selfstanding type but it could also be used in this sense because the dimensions chosen already fit into some available plastic cat litter boxes.

Anyway it can also be produced in different sized and proportions and some other models are at study.

The possibility is reserved to realize the disposable toilet-boxes with various types of devicing, for example: that they can be closed after the use, that they are realized with biodegradable materials, that they are realized in different models, shapes and sizes, that they are made recognizable for eventual differentiated trash collections, that they are adapted for being used by other animals as well, etc.

Explanatory note: A simple devicing of the illustrated disposable toilet-box for cats is already offered by the covering: when it is open it could be a protection or better separation if it has to be placed against a wall or close to another object, and also it can be used by male cats for putting their marks on it as they do this sometimes on their toilet place. Some other improvements could of course be apported like providing it with a handle for being carried like a suitcase etc. and the possibility has been taken into consideration to modifying it for being used by some other animals as well. In the latter case the shape of the cover of the model on Figure 1 would be changed for alluding to another animal.

Some other models of disposable toilet-boxes are at study.